

# The Times and Register.

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## Original.

### A REPORT OF NINE CASES OF CONTUSIONS AND SPRAINS OF THE BACK, WITH SPECIAL REFERENCE TO THE EARLY TREATMENT OF THESE INJURIES.\*

BY HENRY R. WHARTON, M. D.

During my term of service in the Presbyterian Hospital in 1892 there were admitted to the surgical wards nine patients who suffered from contusions and sprains of the back, and it has occurred to me that a short description of the method of treatment, which I have employed with the most satisfactory results in this class of injuries, might be of some interest to the Fellows of the Academy.

Case I.—J. P., aged 28, gardener, who was admitted to the hospital May 5, 1892, received a blow upon the back in the left lumbar region from a heavy wooden tub, which caused him severe pain. An examination after admission proved that there was no injury to the spine, but there was intense pain upon pressure in the left lumbar region, and also severe pain upon motion. The patient's back was strapped with adhesive plaster, and two days afterward he was able to sit up with comfort, and he was discharged from the hospital on May 9.

Case II.—H. P., aged 19 years, fireman, was admitted May 12, 1892, with the following history: While standing

on the edge of the tender of a locomotive he slipped and fell between the tender and the station platform; the engine was moving at the time, and he was rolled between the tender and platform, being severely squeezed in the lumbar region.

Upon examination after admission, no fracture of the spine or pelvis could be detected, but the patient complained of intense pain in the back, was unable to stand, and suffered from retention of urine. The back was firmly strapped with adhesive plaster. Upon introducing a catheter, a large quantity of bloody urine was drawn from the bladder, and after this the patient passed the urine voluntarily, which was deeply tinged with blood for four days. The patient improved steadily, and was discharged from the hospital on May 27, being able to walk, but still having some tenderness in the lumbar region, this part being still supported by means of adhesive straps.

Case III.—J. G., aged 25 years, steam fitter, was admitted on May 20, 1892. The patient stated that while boarding a moving train at Powelton avenue he was thrown against the milk platform, striking his back and shoulder. An examination, on admission, showed slight contusion of the shoulder and marked contusion and tenderness over the lumbar region. The patient was unable to walk, and complained of severe pain upon pressure and upon making any movements. The back was strapped, which gave great relief. The patient also suffered from retention of urine, requiring the use of a catheter.

\* Read before the Acad of Surg, May, 1894.

The patient was discharged in good condition on June 4.

Case IV.—D. D., aged 43 years, bricklayer, was admitted to the hospital on May 23, 1892. The patient stated that while standing on a platform sixteen feet high, laying brick, the wall was pushed over by a derrick and he was thrown to the ground, striking upon his back. An examination after admission showed marked contusion of back and shoulder, great tenderness upon pressure and motion, and some tenderness over the spinous process of one of the lower dorsal vertebrae. The back was strapped, which gave great comfort. The patient was kept in bed for a week, and was discharged on June 6, in good condition.

Case V.—R. C. W., aged 27 years, brakeman, was admitted to the hospital on May 28, 1892. The patient stated that he was knocked off the top of a car on which he was riding, and was thrown to the ground, striking upon his back. On examination there was marked contusion of the back in the lumbar region, tenderness upon pressure, and inability to stand or walk. The patient's back was strapped, which gave him marked relief, and he was discharged on June 30.

Case VI.—A. W., aged 28 years, trucker, was admitted to the hospital on May 31, 1892. The patient stated that while moving a heavy slab or stone it fell and struck him upon his back. An examination after admission to the hospital detected no fracture of the vertebrae, but there was great soreness and tenderness on pressure in the lumbar region. The back was strapped, and the patient was discharged from the hospital on June 3, in good condition.

Case VII.—J. C., aged 19 years, ice-man, was admitted to the hospital on June 12, 1892. The patient stated that he slipped while crossing the street, and fell, striking his back upon the curbstone. He was unable to walk, and was brought to the hospital by the patrol. Upon examination after admission it was found that the patient had great pain in the left lumbar region, but there was no evidence of fracture of the vertebrae. The back was strapped, which gave him immediate relief. This patient suffered from retention of urine, and upon evacuation of the bladder it was found that the urine was bloody. The patient did well, and was discharged on June 14.

Case VIII.—W. McN., aged 35 years, brakeman, was admitted June 22, 1892. The patient stated that in a freight wreck at Tacony the car on which he stood was thrown from the track, and he was thrown to the ground, striking upon his back. An examination after admission showed that he was suffering from contusion of the back and foot. The back was strapped, and the patient was discharged in good condition, on June 25.

Case IX.—L. B., aged 25 years, was admitted to the hospital June 25, 1892. The patient stated that while standing on the top of a freight car he was knocked off by the Spring Garden street bridge, and was thrown to the ground, striking upon his back.

On examination after admission he was found to be suffering from severe contusion of the back, but there was no evidence of fracture of the vertebrae. The back was strapped, which gave him marked relief. The patient also passed bloody urine. The patient did well, and was discharged on June 28.

It will be noticed in the above cases that the lumbar-dorsal region of the back was the part most frequently injured, and this part seems to be that which was most commonly the seat of contusions and sprains. As regards the treatment of contusions and sprains of the back, I consider that rest in bed is a matter of the first importance, and in addition I have found that the pain and general discomfort of the patient is much diminished, and the time of treatment much shortened by having the back firmly strapped as soon as the patient came under observation. The strapping of the back is effected by taking strips of resin-adhesive or of rubber-adhesive plaster  $2\frac{1}{2}$  inches in width, and long enough to extend half way around the body; these are applied so as to cover in the back, one strap slightly overlapping the other, from a point just below the junction of the last lumbar vertebrae with the sacrum to the lower ribs. These straps were often removed at the end of two or three days, and the back was restraped if the pain and tenderness still persisted. The straps were usually allowed to remain in place until the patient was up and about, without complaining of pain or discomfort in the region of the injury. In cases of severe contusion the straps often require renewal a number of times.

This method of treatment of contusions of the back was first called to my notice by Professor Ashhurst while serving as resident physician in his wards at the University Hospital, and since I have employed it I have entirely discarded the use of fomentations and stimulating lotions, which are generally recommended in the treatment of these injuries.

The treatment usually recommended in contusions and sprains of the back is warmth, frictions, stimulating liniments, anodynes, acupuncture, galvanism and massage, and of these I think massage is the most valuable, employed after the acute symptoms following the injury have subsided; but in early stages of these injuries I am convinced that strapping will be found the most satisfactory method of treatment.

I have observed that the application of straps employed as above described is usually promptly followed by relief of pain, and the fixation produced allows the patient to move with more comfort, and I am very certain, after having now employed this method of treatment in a considerable number of cases, that the time required for the recovery of the injured parts is much shortened. It will be observed, by referring to cases reported, that many of them were comparatively trivial injuries, and the patient recovered in a short time; but even in this class of cases the suffering is often very intense for the first few days. It will also be observed that Case II, VII, and IX passed bloody urine for a few days after the injury, showing that the injury had been severe enough to produce laceration or contusion of the kidney. Lidell,<sup>1</sup> in his very excellent article upon contusions and sprains of the back, speaks of the frequency of hematuria in these injuries when powerful blows have been delivered upon the lumbar or dorsal region of the back. The recovery, as far as I know, in all of the cases reported was satisfactory, except in Case IV. In this case the patient developed, some months after leaving the hospital, symptoms of traumatic neurasthenia, complaining of the pain in the back and head, and vertigo, and brought suit against the contractor for whom he was working at the time of the injury. From

what I heard of this case, and from the fact that when it was ascertained that the patient was doing his ordinary work the suit was settled for a trivial sum, I am inclined to think that the symptoms developed were not severe, and might be classed as litigation symptoms.

In cases of severe contusion or sprain of the back, when there is inability to stand or there is present great pain on motion, and where tenderness over the spine and a certain amount of fixation is present after the injury, I think there is too much tendency to attribute the symptoms resulting to an injury of the spinal cord or membrane, which injuries when unaccompanied with fractures of vertebrae are extremely rare, whereas the injury resulting to the muscles, ligamentous structures, and nerves, with perhaps the wrenching and laceration of the vertebral articulations, is perfectly possible to account for the symptoms resulting, and I agree with Mr. Page that many of these cases are well described by the term "traumatic lumbago."

As contusions and sprains of the back are injuries which are often followed by the development of symptoms which are described as traumatic neurosis, or traumatic neurasthenia, it seems to me that these are cases which should be carefully treated when they first come under the observation of the surgeon, for I am sure that many of these cases if so treated by rest and fixation for a short time would make more complete recoveries, and would be less likely to develop the symptoms above described. In cases of contusions or sprains of the back in which symptoms of traumatic neurasthenia develop, and which give rise to litigation, it is often difficult for the surgeon to estimate how far the original shock of the system following the injury is responsible for the symptoms presented. In many cases the objective signs presented leave no doubt of the severe nature of the injury, while in other cases the symptoms complained of are mainly subjective in their character, and these are the cases which give rise to the most troublesome litigation. It is often difficult to decide whether the symptoms presented are merely assumed or exaggerated for fraudulent purposes, or whether, without any attempt to deception on the part of the patient, injuries trivial in themselves may be unconsciously exaggerated, and

<sup>1</sup> International Encyclopaedia of Surgery, vol. IV., p. 70.

be apparently productive of serious results.

Although many severe injuries of the back apparently recover without developing such symptoms as have been described, there is no doubt that the element of compensation for the suffering and disability from the injuries received plays an important part in the exaggeration of these symptoms, and that expectancy may be justly credited with an important place in their exaggeration. In cases of serious disorder resulting from contusions and sprains of the back, often apparently trivial, the symptoms developing are usually progressive in their character, and soon there will become manifestly marked objective signs, such as paralysis, disturbances of the reflexes, loss of electrical excitability, disturbances of the bladder, loss of flesh, sleeplessness, etc., which place the existence of morbid changes beyond a doubt.

#### FREEDOM FROM RECURRING APPENDICITIS AFTER EVACUATION OF THE ABSCESS AND RETENTION OF THE APPENDIX.\*

BY JAMES M. BARTON, A. M., M. D.

At the last meeting of the American Surgical Association I reported nine recoveries from operations for appendicitis in which the appendix was not removed. These were all cases of ruptured appendix with circumscribed abscess, with no general peritonitis and no symptoms of obstruction.

The operation consisted in opening the abdomen and using sterilized cheese-cloth to hold the movable intestines back and to protect the general peritoneal cavity while the abscess was opened and emptied. Drains were then introduced, some of the cheese-cloth permitted to remain and most of the wound closed. No attempt was made to find or remove the appendix.

Before considering the later condition of the appendix in these cases I wish to report, briefly, five more cases upon

whom I have operated in the same manner, all of whom also recovered.

Mr. B., aged 23 years, a patient of Dr. Cline, of Jersey Shore, Pa. He was operated upon August 24, 1893, on the 17th day of the disease.

William C. M., aged 20 years. The operation was performed at Jefferson College on August 28, 1893, on the third day of the disease.

Harry S., also aged 20 years. I performed the operation at the Philadelphia Hospital, September 4, 1893, on the seventh day of the disease.

Richard B., aged 44 years. The operation was performed at the Jefferson College Hospital, September 17, 1893. It was the third attack, and the present one had existed for 13 days.

Miss V., aged 22 years. The operation was performed November 10, 1893, on the third day of the disease. She was a private patient of Dr. M. B. Dwight, of West Philadelphia.

My object in bringing this subject to your notice is to exhibit several of these patients and to read reports from most of the others to show that none, whose histories I have been able to follow, have been at all troubled by the retained appendix, and to learn if the experience of the Fellows of the Academy have been similar to my own.

It is becoming widely recognized that this method of operation is accompanied by a low rate of mortality. Richardson in this country, Tait in England and Reclus and Schmidt on the Continent, as well as many others, content themselves in these cases of local purulent peritonitis with protecting the peritoneal cavity and draining. Others, however, still consider that no operation is complete without removing the appendix. In the March number of the *Annals of Surgery* Fowler advises, in these cases, the removal of as much of the appendix as can be done without separating adhesions, but considers it necessary to remove the rest of the appendix at a second operation.

Of these fourteen cases eleven were operated upon by myself during the last two years. All on whom I have operated in this manner have recovered, and none, that I am aware of, have had any trouble with the retained appendix since.

As the mortality has been much greater when I have removed the appendix, I now rarely do so unless the appendix

\*Read before Philadelphia Academy of Surgery, April, 1894.

is unruptured, or, if ruptured, only when general peritonitis has occurred.

Of these eleven cases I have been able to follow the history of eight, several of whom are here to-night for examination.

The three whom I have not been able to find were hospital cases; two of them were brought to the hospital by physicians. If either of these had had a recurrence needing surgical aid I should probably have known it.

Of the eight whose histories I have been able to follow, none have had the slightest symptom referable to the appendix since the operation. No tumor is to be felt, and no tenderness. Indeed, they all appear to have been singularly free from diseases of all sorts since the operation.

Mrs. C., aged 30 years, is here this evening, and will permit us to examine the region operated upon. The operation was performed November 29, 1892, and, though she has been using the sewing-machine steadily ever since, she has enjoyed the most robust health. The right iliac fossa is apparently entire free from disease.

I also present Wm. C. M., aged 20 years. I operated upon him at Jefferson College Hospital, August 28, 1893. He has been in perfect health in all respects since the operation, and there is no evidence of disease in the right iliac fossa.

Harry S. has also been kind enough to come here. I operated upon him September 4, 1893, at the Philadelphia Hospital. He also has been in perfect health since the operation, and presents no evidence of disease anywhere.

Dr. Marshall, of Milford, Del., informed me a few days ago that the patient, Mrs. S. on whom I operated for him on February 26, 1892, has enjoyed perfect health ever since, and that on examination he has been unable to find any tenderness on pressure or any tumor in the right iliac fossa.

Dr. Beary, of the Falls of Schuylkill, reports that Mrs. R. T., on whom I operated for him January 20, 1893, has been in perfect health since the operation.

Dr. Cline, of Jersey Shore, Pa., reports that Mr. B. has been in perfect health since the operation; indeed, in better health than for a number of years before.

Dr. Dwight, of West Philadelphia, re-

ports his patient, Miss V., as in perfect health since the operation, and on a recent examination of the seat of the disease there is no tenderness and no tumor to be felt.

Dr. Chandler, of Centreville, Del., reports: "The patient, Mrs. M., on whom you operated for me April 3, 1893, has made a perfect recovery, and has been perfectly well ever since." He adds, "that from the operations in which he has participated he thinks the removal of the appendix in these cases is not required if good drainage is established. The appendix will take care of itself."

From the uniformity with which full and complete recovery has occurred, in the few cases that have come under my care, it looks as though the appendix is not very liable to give trouble if permitted to remain. Indeed, I think it is quite likely, in cases such as we have been considering, that the opening from the appendix into the intestine is closed early in the attack—closed quite as firmly as any ligature would close it, and there is but little probability that fecal matters will ever be again able to enter the appendix either to cause a fecal fistula to follow the operation or to start another case of appendicitis in the future.

If it were not firmly closed the pus would never have broken through the walls of the appendix, or, having broken through, the resulting abscess would not have increased in size, but would have emptied itself through the appendix into the bowel.

To further illustrate the strength of this obstruction at the base of the appendix I have observed, in several cases where fecal fistula followed appendicitis, that in none did the feces make their exit through the appendix, but through other portions of the intestines, showing that the inflammatory deposit closing the appendix was even stronger than the healthy bowel.

The mortality following operations for appendicitis is mainly due to general septic peritonitis and to intestinal obstruction.

If we will look into the cavity of a fully-developed abscess, such as we have been considering, we can readily see how these complications may follow the search for or removal of the appendix. The cavity of the abscess is lined with a thick layer of grayish, poorly organized, aplastic lymph, filled with micro-organisms. The appendix lies buried be-



neath this lymph, and its cavity communicates freely with the general abscess cavity. The opening can occasionally be seen, and is often the only guide by which the position of the appendix can be recognized.

To tear up this fragile and infected lymph, and distribute it through the peritoneal cavity while searching for and liberating the appendix, would greatly increase the probability of establishing a general septic peritonitis.

Intestinal obstruction following operations for appendicitis is probably due to kinking of the recently separated intestines. As they reunite, covered and stiffened as they are by inflammatory deposits, they cannot adjust themselves as readily as at the first formation of the abscess.

To avoid any misunderstanding, let me state that it is only in cases of circumscribed abscess that I have been permitting the appendix to remain.

When the appendix is still unruptured, or when it has ruptured and general peritonitis has occurred, or when obstruction is present, I am in the habit of removing it.

#### A WOMAN IN IT.

The first Chinese medical college worthy the name established by the Chinese Government was recently opened with formal ceremony at Tien-Tsin. The product owes its origin to the intelligence and energy of the Viceroy of China and his wife, who constructed the necessary buildings, and placed the direction in the hands of a distinguished graduate of the University of Dublin, selected by the late Sir Andrew Clark. The establishment of the college is attributed to the efforts of the Viceroy's medical attendant, Dr. Irwin, and to the influence of a Canadian woman, Dr. King. Some twenty well-educated, English-speaking Chinamen have enrolled themselves as students, and the work of instruction has already been begun.

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### THE NEW DIPHTHERIA CURE.

The diphtheria antitoxin solution of Drs. Aronson and Bering, first described in this journal April 21, (Vol. 27, page 259), is becoming very favorably indorsed by medical societies of Germany. At the Budapest medical congress, recently held, Professors Heubner of Berlin, and Roux, of Paris, favorably commented upon the cure. Professor Roux said that he had applied it in the Children's Hospital in which, up to last year, 60 per cent. of the cases had ended fatally. This year he had inoculated over 400 children with the serum and the mortality had sank to 15 per cent. After an injection the malady changes form and disappears soon afterwards.

If in this solution we have as good a cure and prevention for diphtheria as we have in the serum of cow-pox against smallpox, the world may well rejoice as it never rejoiced before. The reports

are most encouraging and we only trust further investigation will prove the truth of what has been stated.

#### A BOYCOTT AGAINST PHARMACEUTICAL MANUFACTURERS.

The American Pharmaceutical Association, which met last week in Asheville, N. C., voted to boycott manufacturers who furnish physicians with their manufactured products for use in dispensing prescriptions. It is claimed by the druggists that year by year the doctors are getting more and more into the habit of filling their own prescriptions and dispensing drugs from their own offices, greatly to the detriment of the prescription business of drug stores. The resolution authorizing the boycott was the work of President Whitney, of Boston, and was adopted without a dissenting voice.

We cannot see wherein the druggists will be greatly benefited by any retaliative process against the manufacturers. The latter, at the present day, are so thoroughly sampling their products by a multitude of ambitious agents that the proportion of purchases by physicians must be relatively large. If the druggists continue their abuse of physicians, by counter-prescribing and the sale of patent medicines, they will find that, if they proceed to become aggressive, the physicians will rise en masse to the support of such manufacturers as put clean reliable goods into their offices and thus office dispensing will become a greater custom than at the present time.

#### CASTRATION FOR ENLARGED PROSTATE.

Hypertrophy of the prostate is one of the most painful infirmities of old age.

Strictly speaking, from a pathological standpoint, it is not a true hypertrophy, for the reason that it is not so much attributable to an enlargement from an interstitial infiltration of fibrous elements as it is to a proliferation, consisting essentially in an inflammatory deposit.

Besides, there is often an entirely new growth, the so-called "middle lobe" or "prostatic bar," which acts as a ball-valve and effectually forces back the urinary current.

Modern surgery has essayed to treat

this eruption by radical surgical measures. Perhaps the most current and best-favored operation is prostatectomy; i. e., namely: through a supra-public incision an amputation of the bar is made. Some have tunnelled an opening through.

These operations are not difficult of performance, though they are attended with great danger to life, and are generally very unsatisfactory.

The latest device has been to castrate, the theory being that, by inducing a sort of artificial impotence, or "menopause," atrophic changes will set in, the enlarged gland shrink and the impediments in time entirely disappear.

It does not appear, however, that there is any connection whatever between sexual activity and this infirmity, for many the most continent and chaste are equally, or rather more prone to prostatic obstruction than are others who have abused the generative system.

At all events it is a most extreme measure, of unquestionable value, and there is nothing yet to show that its results are any better than those secured by simpler measures; certainly they are not commensurate with the dangers to life and the sacrifice.

It may as well be admitted, and it should be generally better known, that in all ordinary cases intelligent aseptic catheterization is by all means the safest and most reliable resource within our reach.

#### THE ADDRESS ON SURGERY BEFORE THE BRITISH MEDICAL ASSOCIATION.

Mr. Grieg Smith, in his address on surgery before the British Medical Association at Bristol, this year, chose for his theme, "The Art of the Surgeon."

As we are always interested in the medical concerns of our British cousins, and our attention has been specially attracted by certain passages in this address, we have decided to give its consideration a passing notice in our columns, as we feel assured that they will be appreciated as timely and pertinent.

The learned speaker said that for once he would lay the science of surgery aside and direct his attention to the art; how it should be acquired, how taught, and how applied.

In many particulars we are in full accord with the essayist, but in a few others we must take a broad issue with

him. He compares the acquisition of the surgical art with the learning of a trade, and says that the student who would learn surgery must be in close touch with his master or teacher.

Clinics, he declares, are quite useless for teaching purposes. There can be no question that, if one intends to master the art of surgery, he might as well expect to learn to fiddle well by simply observing a performer as to operate with skill and safety by watching the movements of the operating surgeon. Nevertheless, to allow the general allegation to go forth that surgical clinics accomplish no good would be a grave evil, for they do fill an important part of the curriculum. When an operator will only properly prepare his cases, arrange his ideas, operate on but one or two capital cases at each clinic, and in every instance indelibly impress on the student's mind the special features of each case, the effect is of immense value, which no amount of reading can supplant.

Mr. Smith, we think, committed a grave injustice against his fellow-practitioners when he made the following utterance: "What is a surgeon?" A stranger, looking at the doorplates of any English town, might reasonably infer that there was no lack of material on which to base an answer; but then the observer does not know, as we do, that the title "surgeon" on an Englishman's doorplate means that the possessor of it is prepared to practice any and every branch of the healing art, save and excepting surgery.

\* An "M. R. C. S." justly and righteously takes Mr. Smith in hand for this compliment to the profession. He says, "I write to protest against the statement, that the title surgeon on an Englishman's doorplate means that the possessor thereof is prepared to practice any and every branch of the art, save and excepting surgery; and I maintain that the great majority of general practitioners practice surgery; and, what is more, often, under most adverse circumstances, meet with general success. This statement, if uncontradicted, would give an impression to the lay mind that the science and art of surgery are excluded from the general practitioner's duties; whereas the most of his work is surgical."

\* \* \* \* "I have nothing whatever to say about other portions of the ad-

dress, but the above paragraph, as I read it, seems to me both unnecessary and untrue."

Well done, brave and valiant brother; it is about time we had our eyes opened on this question. The surgeon, the professor, the consultant and the specialist—how patronizingly they condescend to speak of the general practitioner!

Oh ye gods and little fishes! Can anyone wonder that all want to be professors and specialists?

Let Mr. Grieg Smith and those of other teaching faculties speak out and tell the truth. Do they bring students and practitioners from far and near, take their money, give them certificates for proficiency in surgery, when they know that these documents are fraudulent?

In America we do not have "surgeon" on our doorplates, but we have physician included, as we have put our money up for both. Faculties have taken our money and turned us loose on the public as qualified in both. No! the general practitioner does not propose to throw fame out the window, and turn over to the surgeon those simple cases because the latter tries to monopolize all the dazzle and glitter of our calling and constitute himself the omnipotent and the high-priest of the healing art.

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## Book Notes.

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MYXEDEMA, CRETINISM AND THE GOITRES. By Edward T. Blake, M. D., M. R. C. S. Published by John Wright & Co., Bristol, England. Price, 3s. 6d.

Coming as it does, in a time when so much is being written upon these subjects of singular relationship, this work is a welcome addition to our present medical literature.

The work is an historic account of a number of cases of myxedema, cretinism and exophthalmic goitre remarkably well illustrated by photographic plates.

The septic nature of the diseases are admirably pointed out. An antitoxin, caused by absorption of purulent products, is considered the main cause of Grave's disease in women, and, if these products abolish the functions of the thyroid, we may get myxedema. If

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\*British Medical Journal, Aug. 15, 1894.



the products invade the cortex in a large quantity and abruptly, we get psychosis. If the invasion be more slow and dilute, we get chorea. It is also pointed out that these same products may be a cause of rheumatism in the male by action on the medulla oblongata.

Thyroid feeding and its results is the main treatment discussed of importance. Dr. Blake gives the various methods of antiseptic and germicidal treatment which has been termed "classical."

The typographical part of the work is simply elegant.

#### THAT DREADFUL WOMAN.

By Harold Vynne. Published by Town Topics.

The September number of "Tales from Town Topics" leads off with a decidedly strong, if somewhat racy, novelette, entitled "That Dreadful Woman." The adjective is evidently used in a satirical sense, as the "woman," so far from being a "dreadful" character, proves herself something little short of a saint before the story is done. The character is one that would, perhaps, be hard to find in real life, but the story that is told of a good woman's endeavor and failure to overcome the resultant effects of a doubtful past, and of the sublimity of the sacrifice she makes for her lover, is as fascinating as it is true. The usual collection of bright stories, sketches, poems and witticisms serves to render the September number of "Tales" a particularly tempting one. Town Topics Publishing Co., 208 Fifth avenue, New York city.

#### Here and There.

##### SHORT PRACTICAL POINTS.

Chronic enlargement of the tonsils will be benefited by painting every other day with a mixture of one-third compound tincture of iodine to two-thirds glycerine.

Hydrozone will be found of benefit in dyspeptic diarrhea of children when added to drinking water in the proportion of a teaspoonful of hydrozone to the pint of water. It acts as an antiseptic and is without harm.

Egg water is also beneficial in summer diarrhea of infants. Dissolve the

white of a fresh egg in a pint of cold water that has been boiled, add a teaspoonful of brandy and a little salt.

Bovine, combined with an antiseptic, makes an admirable dressing for burns. It should be changed once a day. Bovine will also assist in establishing skin grafts.

In treating heart weakness in croupous pneumonia, remember that the right ventricle of the organ is attempting to force blood through a consolidated lung and that the danger lies in the overcharge of blood in this side of the heart. Relieve it by increasing vascular circulation, and not by digitalis.

#### Notes by the Wayside.

BY ERNEST B. SANGREE, A. M., M. D.,  
PHILADELPHIA.

Last year I spent two months at a summer resort hotel in which there was a child of 5 years, who behaved so very badly at the table that it was a matter of general talk and comment. At every meal the child raised a wail of loud proportions and at about every other meal the culprit received sundry resounding maternal cuffs and slaps as an inducement to keep quiet, and this failing was then jerked violently out of the dining room. The whole proceeding was a mystery to me until this year, when I learned that the trouble was entirely due to the mother's singular notions on dietetics. Firmly convinced that lettuce with suitable condiments was a great aid to digestion, at every meal she liberally sprinkled with salt and pepper a large leaf of this vegetable, rolled it up in a ball and administered it to her unwilling son. He usually shut his mouth as tightly as possible, and this necessitated prying his mouth open and cramming the wad down his throat to keep him from spitting it out. Hence the daily scenes. To make the little wretch's life worse, the highly seasoned lettuce leaf caused the very trouble it was intended to prevent, so that the miserable little fellow was almost constantly a victim of indigestion, sick stomach and any amount of gaseous eructations.

## Surgery.

Under the charge of T. H. MANLEY, M. D., 115 W. 49th St., New York.

### SOME CONSIDERATIONS ON THE BACTERIOLOGY OF PELVIC SUPPURATIONS.

These observations were made at the Hospital Bichat.

The authors say that in their bacteriological examinations made in cases of catarrhal and parenchymatous salpingitis, besides, in hydrosalpinx, no pathogenic micro-organisms were found. In two cases of retro-uterine hematoma with fever, the cultures were sterile.

In two cases of suppuration in the cellular tissue of the broad ligament, the streptococcus was present.

In thirty-three cases of suppuration in the adnexa, thirteen were sterile; three times the gonococcus was found; twice, pure; and once in association with the bacterium coli. In this case it would seem that the infection was secondary, by the passage of the germ through the walls of the colon.

Four times the pus contained the streptococcus. In two, the pneumococci; once, in association with the bacterium coli.

In those cases containing the gonococcus the patient had a very severe attack of pelvic inflammation. Gonorrheal infection may antedate accouchement, but in the greater number of cases it followed soon after the first connection succeeding delivery. In this infection the patient will always say that for some time before trouble in the groin commenced there had been an abundant yellowish-green, vaginal discharge.

A curious circumstance was noted; that multiparas were more prone to gonorrheal infection after confinement than nuliparas.

The general systemic disturbance seemed to be in no manner influenced by the special germ present, though the deviation seemed to be modified.

In sterile cases the constitutional symptoms were sometimes severely acute, thus refuting the observations of Schauta, Hartman and Morax. Query: has the special quality of the germ present any influence on our course of procedure in operation? Being recognized, should it vary our mode of procedure?

Schauta and Wertheim recommend

that in the course of operation we should make a hasty examination of the pus; something which is neither simple nor always practicable. It has been said that if the pus is sterile or contains the gonococci the suppurative pouch should be completely extirpated, though if other micro-organisms are present, it is enough to open the pyogenic membrane, suture its edges into the cutaneous border of the wound and pack with iodoform gauze. Hartman and Morax do not agree with this line of German practice and claim that by it the results are no better than by other methods.

For instance, in 216 cases, Schauta had 13 deaths. In 33 cases of pyosalpinx there were three deaths, and 14 of a mixed germ origin gave three deaths. Hartman advises total ablation in all cases at the primary operation. In 70 laparotomies practiced at Bichat since January 1, 1893, for suppurative adnexa there was but one death.

—Bulletins et Memoirs De La Societe De Chirurgie.

### ANTIPIRYN AS A VESICAL ANALGESIC.

Vigneron has found intravesical injections of antipyrin an excellent remedy for pain in the bladder in many cases of cystitis. It is important that the bladder should not be in a condition of over-distension. Before washing out the viscus an injection of 10 to 20 grammes of a 1 in 25 solution of antipyrin is made into it; this is left in the bladder for about ten minutes, so as to allow time for the drug to be absorbed. When the bladder is distended the practitioner should, in order not to prolong the operation, content himself with injecting, after washing out the viscus, from 60 to 120 grammes or more of a 1 in 100 or 1 in 200 solution of antipyrin, and leaving it in the bladder. Vigneron states that the drug is quite harmless in the bladder even when the use of it is prolonged for months. When left in the bladder the remedy makes the painful contractions cease; it also acts as an antiseptic.

—Concours Med., August 11.

## Medicine.

Under the charge of E. W. BING, M. D., Chester, Pa.

### FREAKS OF LIGHTNING.

A man of Trimble, Tennessee, recently took refuge under a poplar tree during a thunder storm. Lightning struck the tree and severely stunned Goldby, who lay unconscious, exposed to the rain for several hours. When consciousness returned he was horrified to discover that his skin had been turned as black as that of an African, and it has remained so ever since.

### NOT ASIATIC CHOLERA.

A most satisfactory result has been reached by the thorough investigation instituted by the Marine Hospital Service in regard to the Bavarian immigrant Walther, who died at Cumberland, Md., with symptoms which local physicians took to be those of Asiatic cholera. Surgeon General Wiman sent Passed Assistant Surgeon Geddings to Cumberland to investigate the matter. The body was exhumed, and the result of a bacteriological examination showed that it was not a case of Asiatic cholera. It was found that the man had carried with him a large quantity of improperly cooked food, which contained a ptomaine, which caused his death.

Every cloud has a silver lining, but the knowledge makes it only the more gloomy to the fellow who is on the wrong side of it.

—Kate Field's Washington.

### HYDROGEN DIOXIDE.

By L. D. KASTENBINE, A. M., M. D.

Professor Chemistry, Urinology and Medical Jurisprudence, Louisville Medical College; Professor Chemistry Louisville College Pharmacy.

(From the Louisville Medical Monthly.)

This remarkable liquid, which contains the greatest percentage of oxygen of any compound known, was for some time considered as a mere solution of

oxygen in water, and consequently was called oxygenated water. It was afterwards obtained free from water and found to be a definite chemical compound of hydrogen and oxygen, and differing from water in containing twice as much oxygen. In this state it is a heavy, oily liquid, readily decomposing at ordinary temperatures, but if heated, with explosive violence, being converted into ordinary water and oxygen gas. When poured into water it sinks, being nearly half as heavy again as that liquid, but is miscible in all proportions with it. It has a somewhat bitter, astringent taste, and is colorless, transparent and without odor. It contains 94 per cent. of oxygen gas by weight, and will yield 475 times its volume of that gas. It bleaches the skin, hair, ivory and destroys organic coloring matter, pus and organisms with which it comes in contact by liberating oxygen gas in a nascent or active state. It is resolved into oxygen and water by certain metals, such as gold, platinum, silver and mercury in a state of fine subdivision, although the metals themselves undergo no change whatever. If the oxides of these same metals are brought into contact with it, not only does the hydrogen dioxide lose oxygen and become water, but the oxides lose their oxygen and are reduced to the metallic state, thereby evolving an additional amount of oxygen.

Strange as it may appear, with all its energetic oxidizing action, it has no effect on phosphorus, a substance which is so readily oxidized by the air.

The preparations found in commerce are only solutions of this compound in water, and sold in different degrees of concentration or strength, rated by the number of volumes of oxygen gas they can be made to yield. A fifteen volume solution is one that will give off fifteen volumes of gas from one volume of the solution. A ten volume solution will yield ten pints of oxygen gas from one pint of the solution, and so on.

These solutions, although more stable than mere concentrated preparations, nevertheless decompose and lose their

nascent oxygen on which its powerful antiseptic powers depend, and consequently we find the commercial brands varying considerably from their reputed strengths. The solution I find containing the greatest percentage of available oxygen, is the preparation known as Marchand's, which, when perfectly fresh, is about a fifteen volume solution.

There are quite a number of different methods of preparing aqueous solutions of this interesting compound besides the original method of Thenard, the discoverer. Usually, however, barium peroxide. It must be borne in purified from all foreign matter is decomposed by such acids as will make an insoluble compound with it. The United States Pharmacopeia has adopted this compound under the official title of Aqua Hydrogenii Dioxidii, gives a process of preparing it and describes it as a slightly acid aqueous solution of hydrogen dioxide, containing, when freshly made, about 3 per cent. by weight of the pure anhydrous dioxide, corresponding to about ten volumes of available oxygen. It is made by the action of the phosphoric acid upon barium peroxide. I must be borne in mind that it is essential to employ a small amount of free acid to preserve these solutions, but if too large a quantity it would be a source of irritation when applied to denuded surfaces and inflamed mucous membranes, and consequently, officially, a preparation requiring more than 0.5 c. c. of volumetric caustic potash solution to neutralize .50 c. c. of it does not come up to the U. S. P. standard.

Of the various brands of commercial dioxides I have examined, I find Marchand's to be the one which yields the largest amount of available oxygen under all conditions of exposure, and the one which contains the minimum percentage of free acid. All the marketable articles I have seen are free from barium compounds, but the majority do not come up to the 15 volume standard, but are 6, 8, 10 and 12 volume solutions.

In addition to its medical uses hydrogen dioxide can be employed to detect blood, in conjunction with freshly prepared tincture of guaiac. Although tincture of guaiac turns blue with a variety of substances, blood is not one of them. So in testing for a stain—say on clothing—moisten the spot with water

and afterwards apply a piece of white filter paper; the slightest straw-colored stain on the paper suffices. Now add to the spot on the paper a few drops of the guaiac tincture—no coloration. Add a few drops of solution of peroxide, when instantly the spot turns a deep azure blue. Of course, if the spot turns blue by the guaiac alone, it cannot be due to blood, yet it is possible blood may be present with some other substance which has that property, and hence the employment of peroxide, in that case, would be a source of fallacy. If there is no bluing by guaiac and peroxide together, then absolutely no blood is present.

Hydrogen dioxide can be determined quantitatively by permanganate of potassium solution acidified by sulphuric acid, and the quantity of oxygen gas evolved measured in an instrument called a nitro-meter, and calculated for normal pressure and temperature. One-half of the oxygen evolved comes from the dioxide and the other half from the permanganate solution.

Another method, and the one commonly employed, is to add a volumetric solution of permanganate of potassium from a burette to a measured portion of the hydrogen dioxide solution, diluted with water and acidulated with sulphuric acid, until the permanganate solution is rendered colorless, and then a few drops more of that re-agent employed till a permanent faint pink coloration is given to the dioxide solution to indicate the completion of process. A slight calculation will give the strength of solution. There are other methods, but the two indicated are the best.

A solution of peroxide of hydrogen is usually tested by pouring a drachm of it in a clean test tube, together with an equal quantity of ether, then pouring into the tube a few drops of bichromate of potassium solution, and shaking the tube, when the ethereal layer will become of a beautiful azure blue color, due to the formation of perchromic acid which dissolves in the ether.

To a few drops of nitrate of silver solution, add aqua ammonia enough to precipitate the oxide of silver, then add hydrogen peroxide when finely divided metallic silver separates. A solution of titanous acid in oil or vitriol and diluted will yield a yellow color when added to solutions of the peroxide.

## Electro-Therapeutics.

Under the Charge of S. H. MONELL, M. D., 44 West 46th St., New York.

### ELECTRICITY IN THE REMOVAL OF FACIAL AND OTHER BLEMISHES.

In considering the process of electrolysis it should be stated at the outset that electricity does not by its inherent magnetic power cause destruction of tissue. The constant galvanic current alone may be caused to produce destruction by the chemical action within the tissues of the caustic alkalies, which are freed at its negative pole, and the acids, etc., which are set free at its positive pole. The extent of this action is entirely controllable by the skill of the operator.

A popular but mistaken idea exists on this point, which is well illustrated by the following story:

A telegraph operator applied to the writer for treatment of a nervous affection. Telegraph operators are inclined to feel very thoroughly versed in the mysteries of electricity, and could usually "treat themselves as well as any physician" but for some trifling obstacle which they incidentally encounter. A recognition of this fact will give point to my story.

The patient's mother was also an old experienced telegrapher, in active service, and had herself trained her boy to send and receive with unusual skill.

Upon receiving a letter from him (she lived in the West) that he was being treated by an "electrical specialist in New York," she quickly wrote back, with fond maternal solicitude, to be "very careful and not get electrolysis and injure himself with it."

The apparatus required for the kind of work to be described consists of a galvanic battery of low tension and a voltage that need not exceed fifteen or twenty. An ordinary hand electrode, a pair of epilation forceps, a solid needle holder and a set of needles completes the outfit. The needle holder should not contain an interrupter. Dealers make and sell handles with a device for interrupting the circuit flow, but such a procedure causes a needless aggravation to the patient and is to be sedulously avoided in general practice.

As to proper needles, gold and platinum ones are most frequently recom-

mended for the positive, but for negative use none are superior to fine assorted broaches bought at a jeweler's material store, and rounded down to a blunt point on a smooth oilstone. The necessity for this will be seen from the fact that a sharp-pointed instrument would pierce through the side of a hair-follicle sac so easily that the operator would not detect it; while a blunt pointed needle would follow the hair down to the root, and stop when it has reached the bottom. This is important in the removal of superfluous hairs. For other purposes sharp-pointed needles are required.

Warts, moles, birthmarks, etc., are of various forms, but we may consider them all in two classes—the elevated and non-elevated. In treating these properly the physiological action of the opposite poles must be taken into account.

If we, for experiment, insert two needles connected with the positive and negative poles of a galvanic battery and pass a constant current strong enough and long enough to produce destruction and then allow the wounds to heal, we will find that two scars remain, and if we watch these scars for some months it will be observed that one very soon turns white, sinks slightly below the surface and contracts until it is a hard cicatrix.

This results from the caustic acids, chlorine, etc., set free at the positive pole. The negative scar produced by the softening, relaxing caustic alkalies presents nearly an opposite appearance. It is quite liable to be raised above the surface of the skin and to remain red and irritable. By a combination of the action of the two poles with proper skill we hope to obtain a modified scar which will not be depressed, contracted and unduly white, or elevated, red and irritable. The action of the opposing poles must be skillfully balanced against each other, so that the nerves may be removed permanently with as little disfigurement as possible.

This is always a matter of judgment in which experience alone furnishes the guide, taking into account that the negative scar is irritated if exposed to



cold blasts of air or subjected to irritation, that the nevus, full of bright, red arterial blood, require the predominance of the positive pole, and dark venous ones the negative; that in a plethoric or young vigorous person the positive should predominate, while in the thin, the anemic and the aged the negative should predominate.

In removing a facial tumor both needles are to be introduced, unless in some special cases it is desired to secure the action of one pole exclusively. They should be introduced with great care at the base of the nevus, parallel to the surface, and not under the tumor, but so near the bottom that the electrolytic action will destroy it thoroughly.

Inasmuch as the destructive action of the current is the same in all directions around the needle, beneath as well as above, it is very necessary to diagnose the depth of the tumor before introducing the needles in order to avoid destroying more tissue than is absolutely necessary and leaving a scar unduly large. But it is equally important to destroy all the diseased tissue around the edge of the nevus, and leave nothing but healthy tissue, or nuclei may be left for the reproduction of the tumor or the cicatrix may be left imperfectly healed.

In a vascular nevus the positive platinum needle should be introduced over the site of the principle vessels to secure its drying, coagulating effect and firm eschar where it is most needed. The after-treatment of the sore, which is really a burn, conforms to simple surgical rules, but healing may take place slowly.

In cases where there is a smooth growth of skin over the plexus of vessels, we seek to destroy the vessels but not the skin. For this purpose the needles must be insulated near the point so that no electrolytic action takes place at the seat of puncture.

It is a rather difficult thing to do. The positive needle should pierce through the centre of the tumor and be held stationary, while the negative may be inserted first on one side and then on the other till the tumor has a hard, elastic feeling, but no surface discoloration should take place. If there are signs of softening in a week or so, repeat the process. Some cases have a tendency to return and treatment is not always satisfactory. Occasionally a

slough is produced before eradication is complete.

Moth patches, port wine birthmarks and all pigmentary moles, etc., are removed in a somewhat different manner, although the same principle of polar action still applies.

Instead of working through the base we here simply puncture into the nevus, at intervals of say one-sixteenth of an inch, and continue over the surface until the action around each of the needles merges and forms a continuous patch.

Very slight punctures and a small amperage only are required, and it is important that the new integument which is to cover the area should start from healthy borders. While not distressingly painful or requiring an anesthetic, yet if the mark is large the removal may be tedious, as several operations will be necessary and each allowed to heal before another is begun.

If a mole has a hair growing in it remove the hair first and wait for it to heal before attempting further. The steps for the removal of superfluous hair are as follows:

The all important point is the introduction of the needle, and the experienced operator will depend more upon his sense of feeling than on his sight. The needle should be inserted down alongside the hair to the bottom of the sack, but no further. If it is in the follicle it glides smoothly along with but very little pressure until it reaches the bottom. If it does not properly enter the follicle it will require considerable pressure to get it through the epidermis. The needle is attached to the negative pole and should be inserted while the circuit is broken, closing the circuit by having the patient bring his or her hand in gradual contact with an ordinary electrode placed conveniently near.

As to the current strength, less than 4 M. A. will be all that is required, but the intensity should not be intolerable to the patient. Usually in less than a minute of time a little frothy substance will be detected around the needle, and it indicates that electrolytic action has taken place. No destruction of tissue should be caused by using stronger currents for longer periods, but the needle should be removed and the hair withdrawn by the epilation forceps. If it comes out easily the follicle is destroyed, and the hair will not return. If force is required the hair is not destroyed, and the needle should be reinserted and the current applied again.

Avoid too frequent operations. Sitings that repeat treatment of the same site should first permit the part to fully heal. With the best operators probably 5 to 10 per cent. of the removed hairs will return. In removing one blemish avoid making another that is worse.

All this treatment takes time, and unless patients are informed of the necessity for patience they will not be prepared for the apparent delay in achieving results. Haste is often made very slowly in this branch of electrical work.

## Miscellany.

### ALMOST A NEW YORK DAILY.

That Democratic wonder, the New York Weekly World has just changed its weekly into a twice-a-week paper, and you can now get the two papers a week for the same old price—\$1.00 a year.

Think of it! The news from New York right at your door fresh every three days—104 papers a year.

We have made arrangements by which we can furnish our journal and the twice-a-week New York World all for only \$1.75 a year. Here is an opportunity to get your own medical journal and the New York World twice every week at extraordinarily low prices. See our advertisement, under index.

### WANT NO PHYSIOLOGY.

The Christian Scientists of Burlington, Ia., have petitioned the school board to excuse their children from attendance when physiology is taught. The petition declares that there is no material body, and objects to having their children taught to believe there is anything so much in evidence as a stomach or a liver. It objects also to geography on the score that it recognizes a material body. The petition was refused as the school board was too painfully conscious of its own stomach, liver and other of the fabulous imaginary organs of the myth and delusion called the human body to be able to coincide with the views of the petitioners.

### DR. FRANK MUHLENBERG DEAD.

Dr. Frank Muhlenberg, a prominent physician of Lancaster, died suddenly last night from congestion of the brain, after a brief illness, aged 50 years. Deceased was a son of Dr. F. A. Muhlenberg, a noted physician, and after fitting himself at Pennsylvania College, graduated at the University of Pennsylvania. He spent several years in Germany, and upon his return began practicing in Philadelphia. He continued there until ten years ago, when he removed to Lancaster and continued his practice.

### A NEW DANGER.

Hamlet rudely reminds Ophelia that while God has given ladies one face they insist of making themselves another. He says he has heard of their paintings, but he makes no allusion to their teeth, and we are willing to believe that Ophelia's were the gift of Nature. Had she lived in the present day the chances are that they would have been the handiwork of the dentists, and Hamlet might possibly have learnt the fact to his cost. A young lady of New Jersey was recently kissed by her lover with such Swinburnian fervor that the gold filling fell out of one of her teeth. The ungallant swain seems to have been unwilling to pay for the necessary repairs. The result is that the engagement has been broken off, and Chloe is suing Strephon for the value of her damaged tooth. This case adds a fresh terror to love making in these days of breach of promise and of our particular protegee, the bacillus basii, and it opens up a rich vein of legal questions of a novel kind. If Angelina's maiden blushes come off on Edwin's cheek, is the latter liable for the cost of their production? If a deviated septum which has (to use the words of Theophile Gautier) altered the intention of the fair one's nose to be Greek has been rectified by surgical art, is the enamored wooer liable for the amount of the fee if the structure gives way under the ardor of his embrace? Truly if this be the law the man whose fancy lightly turns to thoughts of love might, as Touchstone says, "If he were of a fearful heart, stagger in this attempt." At any rate, before sporting with Amaryllis in the shade it would be well for the lover to make sure that one of her eyes is not made of glass, and before playing with the tangles of Neera's hair it would be prudent for him to satisfy himself that it is not detachable.

—British Medical Journal.

### NO GRIEVANCE.

"Is anything the matter with that other tooth, doctor?"

"No, sir. It aches out of sympathy."

"Take it out. It can't play any Debs game on me!"

—Chicago Tribune.

## KENTUCKY SCHOOL OF MEDICINE.

At the meeting of the Association of American Medical Colleges, held in San Francisco on June 7, 1894, the Kentucky School of Medicine, of Louisville, Ky., was dropped from membership in the association.—Ex.

Dr. Wathen, the dean of the Kentucky School of Medicine, denies emphatically that his school was ever a member of the Association of American Medical Colleges. It is a member of the Southern Association in good standing, and no school in this country is more strict in its requirements nor possesses a higher standard of excellence. The Kentucky School of Medicine is one of the oldest and best known institutions in the South, and its requirements, both for matriculation and graduation, are higher than are those of either the Southern or American associations. The Faculty has just completed a large hospital annex, and the clinical advantages the coming season will be equal to any, and superior to most other colleges.

—Louisville Med. Monthly.

PRELIMINARY PROGRAM OF THE  
TRI-STATE MEDICAL SOCIETY,  
ATLANTA, GA., OCTOBER 17,  
18 AND 19.

TUESDAY, OCTOBER 17, 1893—Morning Session.  
9 A. M. to 12 M.

Prayer by Rev. John A. Stevens.

Address of Welcome, by Dr. A. W. Boyd, President Chattanooga Medical Society.

Response, by Dr. Richard Douglas, President of the Tri-State Medical Society.

1—"Treatment of Puerperal Mastitis"—J. W. Russey, Chattanooga.

2—"Disease of the Female Bladder"—J. C. LeGrand, Anniston, Ala.

3—"The Treatment of the Diseases of the Uterine Appendages"—J. A. Gogans, Alexander, Ala.

4—"Membranous Croup, with Report of Cases treated with Tracheotomy"—R. M. Harbin, Calhoun, Ga.

AFTERNOON SESSION 2 TO 5 P. M.

5—"Treatment of the Omentum in Hernia Operations"—G. A. Baxter, Chattanooga, Tenn.

6—"Treatment of Psoriasis at Hot Springs, Ark., with report of cases"—J. Cabell Minor, Hot Springs, Ark.

7—"Serous or Watery Discharges during Gestation; their Source and Significance"—J. R. Rathmell, Chattanooga, Tenn.

8—"Tuberculosis on the Cumberland Mountains"—L. P. Barbour, Tracy City, Tenn.

9—"Symptoms and Treatment of Gastritis"—G. T. Prince, Whiteside, Tenn.

NIGHT SESSION 7.30 TO 9.30 P. M.

10—"Tubercular Peritonitis"—T. J. Crofford, Memphis, Tenn.

11—"Recent Observations of Croupous Pneumonia, with Special Reference to Prophylaxis and Treatment"—R. M. Cunningham, Birmingham, Ala.

12—"Treatment of Pyrexia"—J. A. Witherspoon, Columbia, Tenn.

WEDNESDAY, OCTOBER 18—Morning Session.

9 A. M. TO 12 M.

Prayer by Rev. C. G. Jones.

13—"Treatment of Septic Bubo"—W. Frank Glenn, Nashville, Tenn.

14—"Symptoms and Pathology of Fractures about the Elbow"—J. B. Murfree, Murfreesboro, Tenn.

15—"Treatment and Prognosis of Fractures about the Elbow"—Willis F. Westmoreland, Atlanta, Ga.

AFTERNOON SESSION—2 TO 5 P. M.

16—"President's Address—"Responsibilities of the Abdominal Surgeon"—Richard Douglas, Nashville, Tenn.

17—"Treatment of Stone in the Biliary Ducts"—W. E. B. Davis, Birmingham, Ala.

18—"Cholecystotomy"—Paul F. Eve, Nashville, Tenn.

19—"Pathology of the Sequelae of Purulent Inflammation of the Middle Ear"—T. Hilliard Wood, Nashville, Tenn.

20—"Treatment of the Sequelae of Purulent Inflammation of the Middle Ear"—G. C. Savage, Nashville, Tenn.

NIGHT SESSION—7.30 TO 9 P. M.

21—"Treatment of Varicocele"—J. W. Handy, Nashville, Tenn.

22—"Etiology, Pathology and Prevention of Ophthalmia Neonatorum"—L. B. Graddy, Nashville, Tenn.

23—"Treatment of Ophthalmia Neonatorum"—B. F. Travis, Chattanooga, Tenn.

THURSDAY, OCTOBER 19.

MORNING SESSION—9 A. M. TO 12 M.

Prayer by Rev. W. J. Trimble.

24—"The Significance of Albumen in the Urine in Pregnancy"—E. T. Camp, Gadsden, Ala.

25—"Medical Ethics"—J. B. Cowan, Tullahoma, Tenn.

26—"Movable Kidney"—J. B. S. Holmes, Rome, Ga.

27—"Pathology and Treatment of Goitre"—W. C. Townes, Chattanooga, Tenn.

AFTERNOON SESSION—2 TO 5 P. M.

28—"Action of the Galvanic Current on the Uterine Tissue"—H. Berlin, Chattanooga, Tenn.

29—"The Elastic Dressing Applied to Incomplete Anchylosis of the Knee"—G. W. Barrier, Columbus, Ga.

30—"Report of Psychological Science, Chicago, August, 1893"—John E. Purdon, Cullman, Ga.

NIGHT SESSION—7.30 TO 9.30 P. M.

31—"Treatment of Typhoid Fever"—Y. L. Abernathy, Hill City, Tenn.

32—"Naso-Pharyngeal Adenoids"—E. L. Jones, Chattanooga, Tenn.

33—Miscellaneous business.